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Empirical research of relationship between corporate social responsibility and risk (TSE)

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Abstract: In late 1960s, social responsibility concept was included in accounting literature. The main purpose of the research is to investigate the relationship between risk and social responsibility of the companies listed on Tehran Stock Exchange. The research method is quasi – empirical and statistical population is all companies listed on Tehran Stock Exchange from 2008 - 2014. Linear regression was used to analyze the data. The results indicate that there is a significant relationship between risk variables and social responsibility.

Key words: Business risk; Corporate risk; Financial risk; Social responsibility

1. Introduction

The performance of companies and business unties are influenced by many internal and external factors that each of them can impact on success level of companies for maximizing profitability and more earning to shareholders. Managers, activists in capital market and economic policy makers are required identifying accurately the environmental factors to contribute investors take rational risk, identify these factors and choose investment options for gaining desirable return. Although big companies report voluntarily their social responsibilities, but there is not a comprehensive agreement for all. Some believe that investors respect to these information (Gray and Theodor, 2002). But Sandhu and Kapoor believe that more researches should be conducted to approve the assumption. Generally, public expects companies act properly as a good citizen. To decide and judge about the most proper investment method with goal of maximizing shareholders' wealth is one of the very important issues in financial management field. To achieve above goal, there are two desirable strategies: maximizing shareholders' wealth and minimizing capital. Main evolution in business atmosphere, including globalizing business, high speed of changes in technology, leads to increased competition and increased complexity of management in organizations. These changes have been faced management with various risks. Management properly of these risks guarantees to survive business unit. Identification and management of risk is one of the new approaches to strengthen and improve the effectiveness of commercial units were used. Due to the nature of the financial service business, risk management is particularly important for these companies (Richarson, 2013). In fact, these institutes must manage the risks which they accept. Changes in commodity prices, changes in exchange rates, interest rates and stock price changes are what our bodies are constantly grappling with it. These changes, along with other environmental changes, have been led the emergence of new scientific ideas in the field of management, as far as, chaos theory has been faced organizations with increased environmental complexity, yet manageable. Financial engineering and integrated risk management are charged on risk control. They could create systematic methods via providing new solutions and innovative strategies for service, business and manufacturing companies. Risk taking is an integral part of any business. Economic activity means applying the current resources for uncertain future. The only thing that is certain about the future is risk and uncertainty. The main goal of the research is to investigate the relationship between corporate social responsibility and risk in the companies listed on Tehran Stock Exchange.

2. Theoretical framework and research background

2.1. Social accounting definition

Social accounting is a part of accounting major which measures and reports the social effects (social advantages and disadvantages) resulting from business unit's activity. Since any business unit as a member of a society acts on it and interacts continuously with other members of society and according to the unwritten social contract between community members that have been enacted to protect the interests of all members, business needs to be aware of their obligations and responsibilities and they were not confined to protecting the interests of shareholders, but they feel other obligations and responsibilities in relation to other

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social groups such as creditors, employees, customers and vendors and groups in society, as well as his or her surrounding environment. Social accounting can be defined as a connection with the information published by an organization that allows interested parties to assess organizational performance in dealing with social issues (positive and negative) (Jafari, 1994). Social accounting is the process of collecting, measuring and reporting transactions and mutual effects of these transactions between business unit and surrounding society. Through measuring and reporting mutual effects of business unit and surrounding society, social accounting assesses the fulfillment of social obligations (Sepasi, 1995). The issue of social responsibility is not aside from the case, there is no consensus for the definition of the social responsibility between scientists in the management field. According to Green and Zhang (2003), social responsibility is a set of duties and obligations that an organization should do to maintain, care and contribute to the society in which it operates. On the other side, social responsibility is a duty overtaken on private institutes in sense that impact adversely on the society in which operates. This task generally consists of tasks such as: no pollution, not discriminate in employment, not engaging in immoral activities, to inform the consumer of the product quality. Also, social responsibility is the task based on positive participation in the life of society (Nelling, 2011). Robinson says in this regard: social responsibility is one of the organizational duties and obligations for benefiting the society, so that the primary purpose of organization, maximizing profit, is achieved.

2.2. Risk

The most important concept in investment decision (in portfolio) is risk and yield. The relationship between yield and risk is a "direct" relationship (Raee and Talangi, 2004). Hence different portfolio selection patterns and risk measurement criteria have been provided by financial experts which with having details related to portfolio risk and yield tries to seek efficient, achievable and optimal points (via integrating yield and risk). These points are placed on efficient frontier curve (Tehrani and Peymani, 2008). This is where the concept of "risk management" is introduced. Risk management is the process through which an organization or investors react optimally to risk types (Raee and Talangi, 2004). It can be said that risk phenomenon and its measurement is one of the most controversial issues in financial theories. Risk can be considered as the result of incomplete information, so that there is a risk in the absence of the full assurance of success. There are different types of risk including political risk, inflation risk, business risk, bankruptcy risk, liquidity risk and risk of changes in interest rates. Many definitions have been provided about risk as follows:

- Quality or mode which is doubtful.
- Unexpected result or event
- Uncertainty
- Possible changes in outcomes
- Deviation from what is considered (Tehran and Peymani, 2008)

As seen, whatever we go from first definition towards next definitions, on the one hand, the ability to measure risk gradually increases and on the other side, from the consistency of provided definitions with general concept of risk is reduced. For example, could any change in future consequences regarded as a risk type? Does there possibility of more return than expected return is regarded as risk? Different criteria have been provided to quantify and measure risk including risk range, interquartile range, variance, standard deviation, absolute deviation from average and semi – variance. One of the most common of these criteria is variance and estimated Beat via it. After calculating mean, data deviation is estimated via mean to calculate standard deviation and the average of total squares of theses deviation is considered as risk criterion. But as earlier mentioned, any deviation from average is not regarded as risk. Semi – variance and estimated Beta based on it can be used as one of the undeniable risk criteria to remove this shortage. Through introducing the most important and recent patterns of portfolio formation and risk measurement criteria the research tries to select the most efficient portfolio to contribute investors and draw their efficient frontiers. In the first research in relation of (Value at Risk), Hanifi (2001) calculated and compared (Value at Risk) of different Iranian companies and some foreign countries using historical simulation approach and variance – covariance method. Because historical simulation is based on pervious information have some shortages which reduce its accuracy. In result, some researches were conducted to modify traditional pattern. Using (Value at Risk) concept instead of Garch's auto-regression patterns, Eghbal Nia (2005) used recommended patterns via matrix risk and tried to gain proper coefficients of Garch's auto – regression for calculating and predicting risk.

3. Research background

Tang et al. (2014) studied organizational parts and the effectiveness of social responsibility. The research considers the relationship between organizational factors (top management support, training, employee involvement, teamwork and relation between performance and reward) and the effectiveness of social responsibility. The data was collected using an electronic questionnaire from a random sample of 899 financial top managements in Australian manufacturing organizations. The findings highlighted the importance of the effectiveness of social responsibility as a background from corporate performance and as a mediating role for the relationship between organizational factors and environmental performance. The findings determined that which part of an organization has a greater impact on the effectiveness of social responsibility.

Steven et al. (2012) studied the classification of social responsibility. In this research, existing classification methods about social responsibility were studied in this regard which do opportunities exist for practical application in this section? The Integration and development of social responsibility in an organization and quality management systems are studied as potential opportunities for classification. The results indicate that there is no possibility to classify.

4. Research model

The research is in the field of apriority – descriptive studies and from standpoint of goal, the research is an applied research. In terms of execution method, the research will use correlation method and based on post – event data. According to the goals, statistical method of mixed correlation type (time series and cross sectional) was used. It means that the existence of relationship between the variables is calculated via regression. Excel and Stata applications were used to describe the relationship between risk and social responsibility.

5. Research method

According to following model, the relationship between risk and social responsibility (value relevance of each of the independent variables) are studied.

CRS = A+ b1 Market Risk+b2 business risk+b3 Financial risk + b4Lev + b5size + b6 mb

6. Hypothesis

H_1: there is not a relationship between corporate risk and corporate social responsibility.
H_2: there is not a relationship between financial risk and corporate social responsibility
H_3: there is a relationship between business risk and corporate social responsibility

7. Results

Table 1: Model test results

CRS = A+ b1 Market Risk+b2 business risk+b3 Financial risk + b4Lev + b5size + b6 mtb				
Variable		Coefficient	t-statistics	Significance level
Financial risk	FR	-0.015	-2.09	0.037
Business risk	BR	-0.08	-2.44	0.016
Market risk	MR	0.007	0.96	0.337
Growth opportunity	MTB	0.03	8.78	0.0000
Firm Size	SIZE	0.17	3.31	0.001
Leverage	LEV	19.306	7.37	0.0000
Constant	C	-3.009	-1.96	0.052
Determination coefficient of Mac Faden		0.86	LR statistics	68.37
			Significance level	0.000

The results of the table indicate that the model has a good optimization for testing the hypothesis. F-statistics (68.37) and significance level (0.000) indicate that the model has a good significance for testing the hypothesis. The results of Walderig test indicate that there is not autocorrelation among disturbing sentences. Adjusted determination coefficient is 86 per cent, Hasmr – Lensho test was used to test estimated fitness model. Since the possibility of Hasmr – Lensho test is bigger than 0.05, then estimated model has a proper fitness. The variables of financial risk, business risk and market risk (representative of corporate risk) were selected as independent variable, corporate social responsibility, as dependent variable and the variables of firm size; growth opportunity and financial leverage were known as control variables.

7.1. First sub – hypothesis

H_0 = there is not a relationship between market risk and corporate social responsibility.

H_1 = there is a relationship between market risk and corporate social responsibility.

First sub – hypothesis has been put about market risk and corporate social responsibility. According above table in term of significance level, there is not a significance relationship between market risk and corporate social responsibility. There is a significant relationship between the control variables of growth opportunity, firm size and financial leverage with corporate social responsibility. According to the results of the first hypothesis, there is not a significant relationship between market risk and corporate social responsibility in the companies listed on Tehran Stock Exchange.

7.2. Second sub – hypothesis

H_0 = there is not a relationship between financial risk and corporate social responsibility.

H_1 = there is a relationship between financial risk and corporate social responsibility.

Second sub – hypothesis has been put about the relationship between financial risk and corporate social responsibility. According to significance level in above table, there is a significant relationship between financial risk and corporate social responsibility. There is a significant relationship between the control variables of growth opportunity, firm size and financial leverage with corporate social responsibility. According to the results in above table, second sub – hypothesis indicates that there is a significant relationship between financial risk and corporate social responsibility of the companies listed on Tehran Stock Exchange. The results indicate that there is a negative relationship between corporate social responsibility level and risk level for investors and shareholders.

7.3. Third sub – hypothesis

H_0: there is not a relationship between business risk and corporate social responsibility.

H_1: there is a relationship between business risk and corporate social responsibility.

Third sub –hypothesis has been put about business risk and corporate social responsibility. According to significance level in above table, there is a significant relationship between business risk and corporate social responsibility. There is a significant relationship between the control variables of growth opportunity, firm size and financial leverage with corporate social responsibility variable. According to the results, third sub – hypothesis is supported. It means that there is a significant relationship between corporate business risk and social responsibility of the companies listed on Tehran Stock Exchange. The results indicate that there is a negative relationship between risk level and corporate social responsibility level for investors and shareholders.

8. Conclusion

The results of the hypotheses indicate that there is a significant relationship between market risk and social responsibility which was tested using multivariate regression method and according to the results, above hypothesis was rejected. Company social responsibility is not influenced by market risk. The topic can indicate that market' reaction to information disclosure is related to market risk. Second hypothesis states that there is a significant relationship between business risk and corporate social responsibility which was tested using multivariate regression method.. Then there is a significant relationship between corporate social responsibility and market risk. The topic can indicate market' response to information disclosure about business risk. Finally, third hypothesis indicates that there is a significant relationship between corporate social responsibility and financial risk which was tested using multivariate regression method. According to the results, above hypothesis is supported using panel test. There is a significant relationship between corporate social responsibility and market risk. This indicates that market' response to information disclosure is related to market risk.

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